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Applicant	Watanabe, <i>et al.</i>
Serial No.	09/834,596
Filed	August 13, 2001
Title	2-' or 3'-Hydroxymethyl Substituted Nucleoside Derivatives for Treatment of Hepatitis Virus Infections
Papers Submitted:	Transmittal of Supplemental Information Disclosure Statement (1 p.); 106 cited references; and a copy of the Appointment of Associate Attorney (1 p.)
Attorney	Madeline I. Johnston, Esq.
Date Mailed	January 21, 2004
Docket	08841.105037 (PHAR 2020)
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Sheet 1 of 7

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Application Number 09/834,596
Filing Date April 13, 2001
First Named Inventor Watanabe *et al.*
Group Art Unit 1623
Examiner Name Howard V. Owens, Jr.
Attorney Docket Number 08841.105037 PHAR 2020

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U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/Relevant Figures Appear
		Number	Kind Code (if known)			
	AA	3,480,613		Walton <i>et al.</i>	11-25-1969	
	AB	5,977,061		Holy <i>et al.</i>	11-02-1999	
	AC	6,340,690	B1	Bachand <i>et al.</i> (Idenix Pharm.)	01-22-2002	
	AD	6,395,716	B1	Gosselin <i>et al.</i> (Idenix Pharm.)	05-28-2002	
	AE	6,444,652	B1	Gosselin <i>et al.</i>	09-03-2002	
	AF	6,573,248	B2	Ramasamy <i>et al.</i>	06-03-2003	
	AG	2002/0055483	A1	Watanabe <i>et al.</i>	05-09-2002	
	AH	2002/0147160	A1	Bhat <i>et al.</i>	10-10-2002	
	AI	2003/0008841	A1	Devos <i>et al.</i>	01-09-2003	
	AJ	2003/0028013	A1	Wang <i>et al.</i>	02-06-2003	
	AK	2003/0050229	A1	Sommadosi <i>et al.</i> (Idenix Pharm.)	03-13-2003	
	AL	2003/0083307	A1	Devos <i>et al.</i>	05-01-2003	
	AM	2003/0087873	A1	Stuyver <i>et al.</i>	05-08-2003	

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		Office ³	Number	Kind Code ² (if known)				
	AN	FR	1,521,076		Merck & Co. Inc.	04-12-1968		
	AO	FR	1,581,628		Merck & Co. Inc.	09-19-1969		
	AP	FR	2,662,165	A1	Univ Pierre et Marie Curie, Paris	11-22-1991		
	AQ	GB	1,163,103 A		Merck & Co. Inc.	09-04-1969		
	AR	GB	1,209,654 A	A	Merck & Co. Inc.	10-21-1970		
	AS	JP	63-215694	A	Yamasa Shoyu Co. Ltd.	09-08-1988		
	AT	JP	06-228186	A	Yamasa Shoyu Co. Ltd.	08-16-1994		
	AU	WO	98/16184	A2	ICN Pharmaceuticals Inc.	04-23-1998		
	AV	WO	99/43691	A1	Emory U./Georgia Res. Found.	09-02-1999		

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Sheet

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Attorney Docket Number	08841.105037 PHAR 2020

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		Office ³	Number	Kind Code ² (if known)				
	BA	WO	00/09531	A2	Novirio (Idenix Pharmaceuticals)	02-24-2000		
	BB	WO	01/16671	A1	Novirio (Idenix Pharmaceuticals)	03-08-2001		
	BC	WO	01/32153	A2	Biochem Pharma, Inc.	05-10-2001		
	BD	WO	01/60315	A2	Biochem Pharma, Inc.	08-23-2001		
	BE	WO	01/68663	A1	ICN Pharmaceuticals Inc.	09-20-2001		
	BF	WO	01/79246	A2	Pharmasset Ltd..	10-25-2001		
	BG	WO	01/90121	A2	Novirio (Idenix); Univ...Cagliari	11-29-2001		
	BH	WO	01/91737	A2	Novirio (Idenix Pharmaceuticals)	12-06-2001		
	BI	WO	01/96353	A2	Novirio (Idenix); CNRC	12-20-2001		
	BJ	WO	02/03997	A1	ICN Pharmaceuticals Inc.	01-17-2002		
	BK	WO	02/18404	A2	F. Hoffmann-La Roche AG	03-07-2002		
	BL	WO	02/32920	A2	Pharmasset Ltd.	04-25-2002		
	BM	WO	02/48165	A2	Pharmasset Ltd.	06-20-2002		
	BN	WO	02/057287	A2	Merck & Co. Inc.; Isis Pharm.	07-25-2002		
	BO	WO	02/057425	A2	Merck & Co. Inc.; Isis Pharm.	07-25-2002		
	BP	WO	02/070533	A2	Pharmasset Ltd.	09-12-2002		
	BQ	WO	02/094289	A1	F. Hoffmann-La Roche AG	11-28-2002		
	BR	WO	02/100415	A2	F. Hoffmann-La Roche AG	12-19-2002		
	BS	WO	03/026589	A2	Novirio (Idenix Pharmaceuticals)	04-03-2003		
	BT	WO	03/026675	A1	Novirio (Idenix Pharmaceuticals)	04-03-2003		
	BU	WO	03/051899	A1	Ribapharm Inc.	06-26-2003		
	BV	WO	03/061385	A1	Ribapharm Inc.	07-31-2003		
	BW	WO	03/061576	A2	Ribapharm Inc.	07-31-2003		
	BX	WO	03/062255	A2	Ribapharm Inc.	07-31-2003		
	BY	WO	03/062256	A1	Ribapharm Inc.	07-31-2003		
	BZ	WO	03/062257	A1	Ribapharm Inc.	07-31-2003		

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Group Art Unit	1623
Examiner Name	Howard V. Owens, Jr.
Attorney Docket Number	08841.105037 PHAR 2020

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		Office ³	Number	Kind Code ² (if known)				
	CA	WO	03/063771	A2	Pharmasset Ltd.	08-07-2003		
	CB	WO	03/068162	A2	Pharmasset Ltd.	08-21-2003		
	CC	WO	03/072757	A2	Biota Inc.	09-04-2003		
	CD	WO	03/093290	A2	Genelabs Technologies Inc.	11-13-2003		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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	CE	ALTMANN, K.H., <i>et al.</i> , "The Synthesis of 1'-methyl carbocyclic thymidine and its effect on nucleic acid duplex stability", <i>Synlett</i> , Thieme Verlag, Stuttgart, De, October 1994, 10, 853-855	
	CF	BAGINSKY, S.G. <i>et al.</i> , "Mechanism of action of a pestivirus antiviral compound," <i>Proc. Nat. Acad. Sci. (USA)</i> 2000, 97(14), 7981-7986.	
	CG	BEIGELMAN, L.N., <i>et al.</i> , "Dimerization during the acetolysis of 3-O-acetyl-t-O-benzoyl-1,2-O-isopropylidene-3-C-methyl-α-D-ribofuranose. synthesis of 3'-C-methylnucleosides with the β-D-ribo- and α-D-arabino configurations", <i>Carbohydrate Research</i> , 1988, 181, 77-88.	
	CH	BEIGELMAN, L.N., <i>et al.</i> , "A general method for synthesis of 3'-C-alkylnucleosides", <i>Nucleic Acids Symp. Ser.</i> , 1981, 9, 116-119.	
	CI	BERENGUER <i>et al.</i> , "Hepatitis B and C Viruses: Molecular Identification and Targeted Antiviral Therapies," <i>Proceedings of the Association of American Physicians</i> , 1998, 110(2), 98-112.	
	CJ	CARROLL, S.S., <i>et al.</i> , "Inhibition of Hepatitis C Virus RNA Replication by 2'-Modified Nucleoside Analogs," <i>The Journal of Biological Chemistry</i> , 2003, 278 (14), 11979-11984.	
	CK	CZERNECKI, S., <i>et al.</i> , "Syntheses of Various 3'-Brached 2',3'-Unsaturated Pyrimidine Nucleosides as Potential Anti-HIV Agents," <i>J. Org. Chem.</i> , 1992, 57, 7325-7328.	
	CL	DeFRANCESCO, R. <i>et al.</i> , "Approaching a new era for hepatitis C virus therapy : inhibitors of the NS3-4A serine protease and the NS5B RNA-dependent RNA polymerase," <i>Antiviral Research</i> , 2003, 58, 1-16.	
	CM	FAIVRE-BUET, V., <i>et al.</i> , "Synthesis of 1'-Deoxypsico-furanosyl-deoxynucleosides as Potential Anti-HIV Agents," <i>Nucleosides & Nucleotides</i> , 1992, 11(7), 1411-1424.	
	CN	FARKAS, J., <i>et al.</i> , "Nucleic acid components and their analogues. XCIV. Synthesis of 6-amino-9-(1-deoxy-β-D-psico-furanosyl)purine" <i>Collect. Czech. Chem. Commun.</i> 1967, 32, 2663-2667.	

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		Filing Date	April 13, 2001
		First Named Inventor	Watanabe <i>et al.</i>
		Group Art Unit	1623
		Examiner Name	Howard V. Owens, Jr.
Attorney Docket Number	08841.105037 PHAR 2020		
Sheet	4	of	7

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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	DA	FARKAS, J., "Nucleic acids components and their analogues. LXXIX. Synthesis of methyl 1-deoxy-D-psicofuranosides substituted at C(1) with halo atoms or a mercapto group," <i>Collect. Czech. Chem. Commun.</i> 1966, 31, 1535-1543.	
	DB	FEDEROV, I.I., <i>et al.</i> , "3'-C-branched 2'-deoxy-5-methyluridines: Synthesis, enzyme inhibition, and antiviral properties," <i>J. Med. Chem.</i> , 1992, 35, 4567-4575.	
	DC	FRANCHETTI, P., <i>et al.</i> , "2'-C-methyl analogues of selective adenosine receptor agonists: Synthesis and binding studies," <i>J. Med. Chem.</i> , 1998, 41, 1708-1715.	
	DD	GROUILLER, A., <i>et al.</i> , "Novel p-toluenesulfonylation and thionocarbonylation of unprotected thymine nucleosides," <i>Synlett</i> , 1993, 221-222.	
	DE	HARAGUCHI, K., <i>et al.</i> , "Preparation and reactions of 2'- and 3'- vinyl bromides of uracil-nucleosides: versatile synthons for anti-HIV agents," <i>Tetrahedron Letters</i> , 1991, 32(28), 3391-3394.	
	DF	HARAGUCHI, K., <i>et al.</i> , "Stereoselective synthesis of 1'-C-branched uracil nucleosides from uridine, <i>Nucleosides & Nucleotides</i> , 1995, 14, 417-420.	
	DG	HARRY-O'KURU, <i>et al.</i> , "A short, flexible route toward 2'-C-branched ribonucleosides," <i>J. Org. Chem.</i> 1997, 62, 1754-1759	
	DH	HARRY-O'KURU, R.E., <i>et al.</i> , "2'-C-Alkylribonucleosides: Design, Synthesis, and Conformation," <i>Nucleosides & Nucleotides</i> , 1997, 16 (7-9), 1457-1460.	
	DI	HATTORI, H., <i>et al.</i> , "Nucleosides and Nucleotides. 175. Structural requirements of the suga moiety for the antitumor activities of new nucleoside antimetabolites, 1-(3-C-ethynyl-β-D-ribo-pentofuranosyl)cytosine and -uracil," <i>J. Med. Chem.</i> , 1998, 41, 2892-2902.	
	DJ	HREBACECKY, H. <i>et al.</i> , "Nucleic acid components and their analogues. CXLIX. Synthesis of pyrimidine nucleosides derived from 1-deoxy-D-psicose," <i>Collect. Czech. Chem. Commun.</i> 1972, 37, 2059-2065	
	DK	HREBACECKY, H., <i>et al.</i> , "Synthesis of 7- and 9β-D-psicofuranosylguanine and their 1'-deoxy derivatives," <i>Collect. Czech. Chem. Commun.</i> 1974, 39, 2115-2123	
	DL	IINO, T., <i>et al.</i> , "Nucleosides and Nucleotides. 139. Stereoselective synthesis of (2'S)-2'-C-alkyl-2'-deoxyuridines," <i>Nucleosides and Nucleotides</i> , 1996, 15, 169-181.	
	DM	ITOH, Y., <i>et al.</i> , "Divergent and stereocontrolled approach to the synthesis of uracil nucleosides branched at the anomeric position," <i>J. Org. Chem.</i> , 1995, 60, 656-662.	
	DN	JOHNSON, C.R., <i>et al.</i> , "3'-C-trifluoromethyl ribonucleosides, <i>Nucleosides & Nucleotides</i> , 1995, 14, 185-194.	

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	EA	KAWANA, M., <i>et al.</i> , "The deoxygenation of tosylated adenosine derivatives with Grignard reagents," <i>Nucleic Acids Symp. Ser.</i> , 1986, 17, 37-40.	
	EB	LAVAIRE, S., <i>et al.</i> , "3'-deoxy-3'-trifluoromethyl nucleosides : synthesis and antiviral evaluation," <i>Nucleosides & Nucleotides</i> , 1998, 17, 2267-2280.	
	EC	LEYSEN, P. <i>et al.</i> , "Perspectives for the treatment of infections with Flaviviridae", <i>Clinical Microbiology Reviews</i> , Washington, D.C., (January 2000), 13(1), 67-82.	
	ED	MARTIN, X., <i>et al.</i> , "Intramolecular hydrogen bonding in primary hydroxyl of thymine 1-(1-deoxy-β-D-psicofuranosyl) nucleoside," <i>Tetrahedron</i> , 1994, 50, 6689-6694.	
	EE	MATSUDA, A., <i>et al.</i> , "Radical deoxygenation of <i>tert</i> -alcohols in 2-branched-chain sugar pyrimidine nucleosides : synthesis and antileukemic activity of 2'-deoxy-2'(S)-methylcytidine," <i>Chem. Pharm. Bull.</i> , 1987, 35, 3967-3970.	
	EF	MATSUDA, A., <i>et al.</i> , "Nucleosides and Nucleotides. 94. Radical deoxygenation of <i>tert</i> -alcohols in 1-(2-C-alkylpentofuranosyl)pyrimidines : Synthesis of (2'S)-2'-deoxy-2'-C-methylcytidine, an antileukemic nucleoside," <i>J. Med. Chem.</i> , 1991, 34, 234-239.	
	EG	MATSUDA, A., <i>et al.</i> , "Nucleosides and Nucleotides. 104. Radical and palladium-catalyzed deoxygenation of the allylic alcohol systems in the sugar moiety of pyrimidine nucleosides," <i>Nucleosides & Nucleotides</i> , 1992, 11(No. 2/4), 197-226.	
	EH	MATSUDA, A., <i>et al.</i> , "Alkyl addition reaction of pyrimidine 2'-ketonucleosides: synthesis of 2'-branched-chain sugar pyrimidine nucleosides (Nucleosides and nucleotides. LXXXI.)," <i>Chemical & Pharmaceutical Bulletin</i> , March 1988, 36, 945-953.	
	EI	MIKHAILOV, S.N., <i>et al.</i> , "Synthesis and properties of 3'-C-methylnucleosides and their phosphoric esters," <i>Carbohydrate Research</i> , 1983, 124, 75-96.	
	EJ	MIKHAILOV, S.N., <i>et al.</i> , "Hydrolysis of 2'- and 3'-C-methyluridine 2',3'-cyclid monophosphates and interconversion and dephosphorylation of the resulting 2'- and 3'-monophosphates: comparison with the reactions of uridine monophosphates," <i>J. Org. Chem.</i> , 1992, 57, 4122-4126.	
	EK	MIKHAILOV, S.N., <i>et al.</i> , "Substrate properties of C'-methylnucleoside and C'-methyl-2'-deoxynucleoside 5'-triphosphates in RNA and DNA synthesis reactions catalysed by RNA and DNA polymerases," <i>Nucleosides & Nucleotides</i> , 1991, 10, 339-343.	
	EL	NUTT, R.F., <i>et al.</i> , "Branched-chain sugar nucleosides. III. 3'-C-methyladenine," <i>J. Org. Chem.</i> 1968, 33, 1789-1795.	

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				Application Number	09/834,596	
				Filing Date	April 13, 2001	
				First Named Inventor	Watanabe <i>et al.</i>	
				Group Art Unit	1623	
				Examiner Name	Howard V. Owens, Jr.	
Attorney Docket Number	08841.105037 PHAR 2020					
Sheet	6	of	7			

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	FA	OIVANEN, M., <i>et al.</i> , "Additional evidence for the exceptional mechanism of the acid-catalysed hydrolysis of 4-oxypyrimidine nucleosides: hydrolysis of 1-(1-alkoxyalkyl)uracils. Seconucleosides. 3'-C-alkyl nucleosides and nucleosides 3',5'-cyclic monophosphates," <i>J. Chem. Soc. Perkin Trans.</i> , 1994, 2, 309-314.	
	FB	ONG, S.P., <i>et al.</i> , "Synthesis of 3'-C-methyl adenosine and 3'-C-methyluridine diphosphates and their interaction with the ribonucleoside diphosphate reductase from <i>Corynebacterium nephridii</i> ," <i>Biochemistry</i> , 1992, 31, 11210-11215.	
	FC	PAN-ZHOU X-R., <i>et al.</i> , "Differential effects of antiretroviral nucleoside analogs on mitochondrial function in HepG2 cells," <i>Antimicrob Agents Chemother</i> 2000; 44(no.3), 496-503.	
	FD	ROSENTHAL, A., <i>et al.</i> , "Branched-chain sugar nucleosides. Synthesis of 3'-C-ethyl (and 3'-C-butyl)uridine," <i>Carbohydrate Research</i> , 1980, 79, 235-242.	
	FE	SAMANO, V., <i>et al.</i> , "Nucleic acid related compounds. 77. 2',3'-didehydro-2',3'-dideoxy-2'(and 3')-methyl nucleosides via [3,3]-sigmatropic rearrangements of 2'(and 3')-methylene-3'(and 2')-O-thiocarbonyl derivatives and radical reduction of a 2'-chloro-3'-methylene analogue," <i>Can. J. Chem.</i> , 1993, 71, 186-191.	
	FF	SAMANO, V., <i>et al.</i> , "Synthesis and radical-induced ring-opening reactions of 2'-deoxyadenosine-2'-spirocyclopropane and its uridine analogs. Mechanistic probes for ribonucleotide reductases," <i>J. Am. Chem. Soc.</i> , 1992, 114, 4007-4008.	
	FG	SCHMIT, C. <i>et al.</i> , "The effects of 2'- and 3'-alkyl substituents on oligonucleotide hybridization and stability," <i>Biorganic & Medicinal Chemistry Letters</i> , 1994, 4(No.16), 1969-1974.	
	FH	SERAFINOWSKI, P.J., <i>et al.</i> , "New method for the preparation of some 2'- and 3'-trifluoromethyl-2'-3'-dideoxyuridine derivatives," <i>Tetrahedron</i> , 1999, 56(No. 2), 333-339.	
	FI	SHARMA, P.K., <i>et al.</i> , "Synthesis of 3'-trifluoromethyl nucleosides as potential antiviral agents," <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 2000, 19(No. 4), 757-774.	
	FJ	SOMMADOSSI J-P., <i>et al.</i> , "Comparison of cytotoxicity of the (-) and (+)-enantiomer of 2',3'-dideoxy-3'-thiacytidine in normal human bone marrow progenitor cells," <i>Biochemical Pharmacology</i> , 1992; 44:1921-1925.	
	FK	SOMMADOSSI J-P., <i>et al.</i> , "Toxicity of 3'-azido-3'-deoxythymidine and 9-(1,3-dihydroxy-2-propoxymethyl)guanine for normal human hematopoietic progenitor cells in vitro," <i>Antimicrobial Agents and Chemotherapy</i> , 1987, 31(No. 3), 452-454.	
	FL	TRITSCH, D., <i>et al.</i> , "3'-β-ethynyl and 2'-deoxy-3'-β-ethynyl adenosines: first 3'-β-branched-adenosines substrates of adenosine deaminase," <i>Bioorganic & Medicinal Chemistry Letters</i> , 2000, 10, 139-141.	

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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